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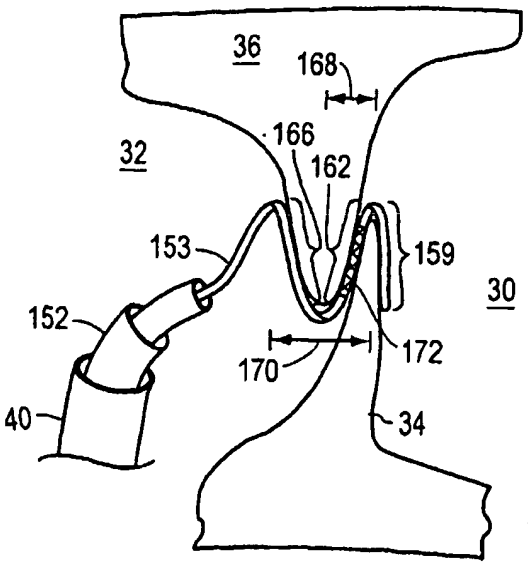
(54) Title: WELDING SYSTEMS FOR CLOSURE OF CARDIAC OPENINGS



(57) Abstract: A go no-go gauge and method for verifying whether a process kit part used within a plasma chamber of a plasma processing tool has accumulated excessive wear or deposits. The gauge includes a component for verifying whether a dimension of a process kit part feature violates a prescribed size tolerance, the violation indicating that the process kit part has accumulated excessive wear or deposits.

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AMENDED CLAIMS
[received by the International Bureau on 9 September 2005 (09.09.05);
original claims 1-4 and 9-11 amended; new claim 27 added;
remaining claims unchanged (3 pages)]

1. An intravascular catheter for treatment of an intracardiac site requiring treatment, the catheter comprising:

a member, said member comprising an insulated distal section, an insulated proximal section, and an uninsulated middle section, said middle section comprising an electrode connectable to an energy source, wherein the energized electrode provides heat to the intracardiac site requiring treatment.

2. The intravascular catheter of claim 27 further comprising an elongated sheath comprising a proximal end, a distal end, and defining a bore, wherein the coil is extendable from inside the bore.

3. The intravascular catheter of claim 27 wherein the coil is releasable from the rest of the catheter.

4. The intravascular catheter of claim 27 wherein the coil comprises a first pitch and a second pitch.

5. The intravascular catheter of claim 4 wherein the second pitch differs from the first pitch.

6. The intravascular catheter of claim 4 wherein at least one of the first pitch and the second pitch decreases when the electrode is connected to the energy source.

7. The intravascular catheter of claim 4 wherein both pitches of the coil decrease when the electrode is connected to the energy source.

8. The intravascular catheter of claim 4 wherein the first pitch measures between about 5 mm and about 10 mm, and the second pitch measures less than about 1.5 mm.

9. The intravascular catheter of claim 27 wherein the coil comprises a shape memory material.

10. The intravascular catheter of claim 9 wherein the shape memory material is Nitinol.

11. The intravascular catheter of claim 27 where the coil is capable of releasing a welding agent to facilitate tissue reparation.

12. The intravascular catheter of claim 11 wherein the welding agent comprises a material selected from the group consisting of fibrinogen, collagen, and an adhesive.

13. The intravascular catheter of claim 1 wherein the energy source comprises a radio frequency energy source.

14. An intravascular catheter for treatment of an intracardiac site requiring treatment, the catheter comprising:

a releasable coil at a distal end of the catheter; and

an electrode disposed on the coil and connectable to an energy, source wherein the energized electrode provides heat to the intracardiac site requiring treatment.

15. The intravascular catheter of claim 14 further comprising an elongated sheath comprising a proximal end, a distal end, and defining a bore, wherein the coil is extendable from inside the bore.

16. The intravascular catheter of claim 14 wherein the coil comprises a first pitch and a second pitch.

17. The intravascular catheter of claim 16 wherein the second pitch differs from the first pitch.

18. The intravascular catheter of claim 16 wherein at least one of the first pitch and the second pitch decreases when the electrode is connected to the energy source.

19. The intravascular catheter of claim 16 wherein the first pitch measures between about 5 mm and about 10 mm, and the second pitch measures less than about 1.5 mm.

20. The intravascular catheter of claim 14 wherein the coil comprises a shape memory material.

21. The intravascular catheter of claim 14 wherein the shape memory material is Nitinol.

22. The intravascular catheter of claim 14 wherein the coil is capable of releasing a welding agent to facilitate tissue preparation.

23. The intravascular catheter of claim 22 wherein the welding agent comprises a material selected from the group consisting of fibrinogen, collagen, and an adhesive.

24. The intravascular catheter of claim 14 wherein the energy source comprises a radio frequency energy source.

25. A method for treating patent foramen ovale in a patient, the method comprising the steps of:

(a) inducing an intravascular catheter into a patient's heart, the catheter comprising a coil that comprises an electrode;

(b) engaging the coil with both a septum secundum and a septum primum of the patent foramen ovale such that the electrode contacts both the septum secundum and septum primum; and

(c) connecting the electrode to an energy source to heat both the septum secundum and the septum primum.

26. The method of claim 25 wherein step (c) further comprises generating a clamping force in the coil to keep the septum secundum and the septum primum in contact with each other during heating.

27. The intravascular catheter of claim 1, wherein said member is a coil.